

ABSTRACT

The invention provides a low-friction sliding mechanism, a low-friction agent composition, a friction reduction method, a manual transmission and a final reduction gear unit that can exert very excellent low friction characteristics to sliding surfaces present under various applications, and, in particular, that have more excellent low friction characteristics than that of a combination of an existing steel material and an organic Mo compound.

The low-friction sliding mechanism has an oxygen-containing organic compound or an aliphatic amine compound interposed between sliding surfaces that a DLC coated sliding member and a sliding member form.

The low-friction agent composition contains an oxygen-containing organic compound or an aliphatic amine compound.

The friction reduction method includes supplying the low-friction agent composition between sliding surfaces that a DLC coated sliding member and a sliding member form.

The manual transmission includes, as at least one of sliding members, a DLC coated sliding section.

The final reduction gear unit includes, as at least one of sliding members, a DLC coated sliding section.